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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,557	02/27/2008	Rainer Hilbig	DE 030339	7147
24737 7590 03/17/2009 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
LEE, NATHANIEL J.				
ART UNIT		PAPER NUMBER		
4126				
MAIL DATE		DELIVERY MODE		
03/17/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/573,557

Applicant(s)

HILBIG ET AL.

Examiner

NATHANIEL J. LEE

Art Unit

4126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 3 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because Fig. 3 contains graininess and streaks which partially obscure the graph, particularly at the peaks of the two Ga lines. Furthermore, the emission peaks of Fig. 3 are not labeled as they are in Fig's 1 and 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Abstract

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it uses the legal phraseology "means". Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 3 is objected to because of the following informalities: Claim 2 refers to "halogen" as an element, instead of as a group of elements. Applicant should change this to "one or more of the halogen elements", or some similar phrase. Appropriate correction is required.
5. Claim 12 is objected to because of the following informalities: Claim 12 is indefinite and does not distinctly point out and claim the subject matter the applicant regards as his invention. Also, it encompasses non-statutory subject matter (the sun is

an illumination source which can be used for tanning and therefor falls within the scope of the claim). Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 6, 8, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lake (US 3,840,767).

8. With respect to claim 1: Lake (US 3,840,767), hereinafter known as Lake, discloses "a low-pressure gas discharge lamp that has, in a gas-discharge vessel (Lake claim 1), one or more inert gases as a buffer gas (Lake claim 1) and means for producing and maintaining a low-pressure gas discharge (Lake claim 1), characterized in that it contains a gallium halide or a mixture of a plurality of gallium halides (Lake claim 1)".

9. With respect to claim 2: Lake discloses "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that, in addition to one or more gallium halides, it also contains indium and/or thallium (Lake claim 1)".

10. With respect to claim 6: Lake discloses "a low-pressure gas discharge lamp as claimed in 1, characterized in that the inert gas pressure in the gas-discharge vessel is between 1 and 5 mbar (Lake claim 1; "a few" is interpreted as 2 or more)".

11. With respect to claim 8: Lake discloses "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that the discharge can be excited by internal electrodes made of high-melting-point materials (column 2 lines 23-33)".
12. With respect to claim 9: Lake discloses "a low-pressure gas discharge lamp as claimed in claim 8, characterized in that the internal electrodes are provided with a material having a low work function (column 2 lines 23-33)".
13. With respect to claim 11: Lake discloses "an illumination device, characterized in that it includes one or more low-pressure gas discharge lamps as claimed in claim 1 (each individual lamp is an illumination device, therefor any reference which discloses the lamp also discloses an illumination device which includes the lamp)".
14. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hochi et al. (US 5,864,210).
15. With respect to claim 1: Hochi et al. (US 5,864,210), hereinafter known as Hochi, discloses "a low-pressure gas discharge lamp that has, in a gas-discharge vessel (Hochi claim 1), one or more inert gases as a buffer gas (Hochi claim 1) and means for producing and maintaining a low-pressure gas discharge (column 4 lines 35-40), characterized in that it contains a gallium halide or a mixture of a plurality of gallium halides (Hochi claim 1)".
16. With respect to claim 7: Hochi discloses "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that the discharge is excited capacitively or inductively and by a high-frequency alternating field (column 4 lines 35-40)".

17. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Budinger et al. (US 4,710,679).
18. With respect to claim 1: Budinger et al. (US 4,710,679), hereinafter known as Budinger, discloses "a low-pressure gas discharge lamp that has, in a gas-discharge vessel (Budinger claim 1b), one or more inert gases as a buffer gas (Budinger claim 1b) and means for producing and maintaining a low-pressure gas discharge (Budinger claim 1b), characterized in that it contains a gallium halide or a mixture of a plurality of gallium halides (Budinger claim 3)".
19. With respect to claim 10: Budinger discloses "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that it contains a phosphor by which the proportion of UV in the radiation generated is converted into visible radiation (Budinger claim 1a)".
20. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Mutzhas (US 4,298,005).
21. With respect to claim 12: Mutzhas (US 4,298,005), hereinafter known as Mutzhas, discloses "an illumination device, selected from the group of tanning devices, backlighting devices for LCD-displays, UV-disinfection devices and UV-curing devices for resins (column 1 lines 14-20)".

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lake (US 3,840,767).

24. Claim 1 is anticipated by Lake (see above).

25. With respect to claim 3: Lake does not teach "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that it contains the elements gallium, halogen and indium and/or thallium in the following molar proportions: the expression governing the molar proportions of Z is: $m(Z) > 0$, and the expression governing the molar proportions of X, Ga and Z is: $m(X) < m(Ga) + m(Z)$, where X stands for fluorine, chlorine, bromine and/or iodine and Z for indium and/or thallium". However, since the applicant has provided no evidence of unexpected results when the claimed proportions are used, such proportions are therefore viewed as a design choice made obvious by Lake's teachings.

26. With respect to claim 4: Lake does not teach "a low-pressure gas discharge lamp as claimed claim 1, characterized in that the total concentration of the gallium and indium/thallium halides in the gas phase in the gas-discharge vessel is 2×10^{-9} to 2×10^{-11} mol/cm³. However, since the applicant has provided no evidence of

unexpected results when the claimed proportions are used, such proportions are therefore viewed as a design choice made obvious by Lake's teachings.

27. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lake (US 3,840,767) in view of Hammond (US 4,071,798).

28. Claim 1 is anticipated by Lake (see above).

29. With respect to claim 5: Lake does not teach "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that the gas-discharge vessel is surrounded by a heat-reflecting outer envelope". However, Hammond (US 4,071,798), hereinafter known as Hammond, teaches "a low-pressure gas discharge lamp as claimed in claim 1, characterized in that the gas-discharge vessel is surrounded by a heat-reflecting outer envelope (Hammond claim 1)". It would have been obvious at the time of the invention for one of ordinary skill in the art to modify the lamp of Lake with the heat-reflecting outer envelope of Hammond, with the motivation given by Hammond in column 1 lines 32-36 of heat conservation, or alternately in column 1 lines 37-42 of defining a heat sink to control the location where the metal halide is deposited.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANIEL J. LEE whose telephone number is (571)270-5721. The examiner can normally be reached on Monday-Thursday, 8:00 a.m.-5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Nguyen can be reached on (571)272-2424. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. J. L./
Examiner, Art Unit 4126

/James P. Hughes/
Primary Examiner, Art Unit 2883